



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,020	07/03/2003	Klaus Abraham-Fuchs	32860-000556/US	5473

7590 02/04/2005  
Alexander Burke Esq.  
SIEMENS CORPORATION  
170 Wood Avenue South  
Iselin, NJ 08830

EXAMINER
----------

BARBEE, MANUEL L

ART UNIT	PAPER NUMBER
----------	--------------

2857

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/612,020

Applicant(s)

ABRAHAM-FUCHS ET AL.

Examiner

Manuel L. Barbee

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because they appear to be informal. Changes proposed by Applicant satisfy the objections put forth in the previous Office Action and are accepted by the Examiner. However, new formal drawings should be submitted with proper labels as described below. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Stark et al. (WO 01/26548).

With regard to recording patient data, as shown in claims 1, 9, 15, 20 and 24, Stark et al. teach monitoring the completion of monitoring a patient's level of compliance with an exercise treatment protocol (page 1, par. 2, page 9, par. 1 - page 10, page 17, par. 2 - page 18). With regard to providing a first database containing rules for linking patient data to proposals for modifying training programs, as shown in claims 1, 9, 15, 20, 24 and 25, Stark et al. teach a database with historical patient data used to generate treatment protocols and updated treatment protocols (page 13, par. 1 - page 14). With regard to automatically generating proposals for modifying or retaining the training program and outputting the training program on a data processing station, as shown in claims 1, 9, 15, 20, 24 and 25, Stark et al. teach an algorithm that monitors patient performance data and proposes modifications or adjustments to the treatment protocol which is communicated to a patient's handheld device (page 24, par. 1 - page 26, par. 4). With regard to taking into account reciprocal dependencies for success of training in different capability categories, as shown in claims 1, 24 and 25, and taking into account other illnesses, as shown in claim 9, Stark et al. teach considering injury type and grade, patient demographics and past performance of the patient (page 25, par. 3, page 26, pars. 1-3).

With regard to generating organizational recommendations, as shown in claim 15, Stark et al. teach generating reports for insurance companies to facilitate efficiency and financial controls (page 23, par. 3; page 14, lines 7-13). With regard to collective training data from a multiplicity of patients being made available, as shown in claim 20, Stark et al. teach a database with historical data from many patients (page 13, par. 1 - page 14, page 23, pars. 1, 2). With regard to comparing measured values with a stored comparative curve to generate a proposal and at least two subgroups of comparative patients are used, as shown in claim 20, Stark et al. teach three curves for three different groups and comparing the patient's data with the curves to generate a proposal (page 26, pars. 1-3). With regard to a warning being produced when an unfavorable link between a patient's training program and patient data exists, as shown in claim 24, Stark et al. teach an alert when a patient deviates from the treatment protocol (page 17, par. 1). With regard to two data processing stations able to interchange data via a network, as shown in claim 25, Stark et al. teach a handheld computer in communication with a central computer (page 9, par. 1 - page 10, par. 1). Communication may be via the Internet or an intranet network (page 11, par. 2 - page 12).

With regard to confirming one of the generated proposals, as shown in claims 2, 10 and 16, Stark et al. teach allowing a treatment professional to indicate approval for a protocol (page 29, par. 1; Fig. 10). With regard to a warning being produced when an unfavorable link between a patient's training program and patient data exists, as shown in claim 3, Stark et al. teach an alert when a patient deviates from the treatment protocol

(page 17, par. 1). With regard to retrieving patient data from a second database, as shown in claims 4, 11, 17 and 21, Stark et al. teach storing and retrieving the case history of a patient or patients in a database (page 13, par. 1 - page 14). With regard to recording the measured values, as shown in claims 5, 12, 18 and 22, Stark et al. teach automatically recording data (page 19, par 2 - page 20).

With regard to recording and updating patient data during the training program, as shown in claims 6, 13, 19 and 23, Stark et al. teach transmitting recorded patient data to a central server to generate a report and update the treatment protocol (page 19, par. 2 - page 22, par. 2). With regard to generating organizational recommendations, as shown in claims 7 and 14, Stark et al. teach generating reports for insurance companies to facilitate efficiency and financial controls (page 23, par. 3). With regard to taking into account other illnesses, as shown in claims 8 and 27, Stark et al. teach considering injury type and grade, patient demographics and past performance of the patient (page 25, par. 3, page 26, pars. 1-3). With regard to a second data processing station connected to at least measured-value sensor and includes modules for computer-assisted testing of the patient, as shown in claim 26, Stark et al. teach a handheld computer connected to a personal orthopedic restraining device that includes a transducer for recording patient movement (page 9, par. 1 - page 10).

#### ***Response to Arguments***

4. Applicant's arguments filed 17 December 2004 have been fully considered but they are not persuasive. With regard to claims 1, 24 and 25, Applicant states that Stark et al. neither disclose nor suggest "providing a first database containing rules for linking

patient data to proposals for modifying training programs...wherein the rules...take into account reciprocal dependencies for success of training in different capability categories in order to ensure balanced training success". Further, Applicant states that "historical treatment protocol records" as used in Stark et al. are not equivalent to "different capability categories" of the present claimed invention and that the factors considered in Stark et al. on page 25, par. 3 and page 2, pars. 1-3 are not "capability categories" as claimed by the invention. Applicant states that these factors are non-goal related factors whereas the capability categories of the claimed invention are related such that the goals for each of them need to be achieved in a set ratio. Applicant's specification states that some examples of capability categories are linguistic disorders, coordination disorders and balance disorders (page 9, par 29). Stark et al. teach factors that include injury type and grade, patient demographics, past performance and safety levels. The factors affect the challenge level (page 25, par. 3). Since the factors affect the challenge level they are taken into account for training capability and balanced training success and are capability categories. With regard to rules, Stark et al. teach using statistical analysis of the database records to generate a treatment protocol (page 13, par. 1).

With regard to claim 9, Applicant states that the term "injury" as disclosed by Stark et al. and the term "illnesses", as claimed in claim 9 are different. Applicant presents definitions for these two words. Illness can also be defined as "an unhealthy condition of the body or mind" (Merriam-Webster's Collegiate Dictionary Tenth Edition).

An injury may cause a condition of illness and therefore considering other injuries meets the claim language.

With regard to claim 15, Applicant states that “insurance company reports to facilitate efficient of reimbursements and financial controls” taught in Stark et al. is not like “generation and output of advice including organizational recommendations for actions which result from the modification” as stated in claim 15. An insurance company is an organization, and reports are advice or recommendations for financial action. Additionally, reports are available is available to all relevant people involved with the patient’s treatment (page 14, lines 7-13).

With regard to claim 20, Applicant states that the manner in which a treatment program is determined in Stark et al. is wholly unlike the method of the present claimed invention. Further, Applicant states that since data of prior similarly situated patients is “presented to a treatment professional for approval” in Stark et al., Stark et al. do not disclose or suggest that “the patient’s respective current measured values are automatically compared with measured values from the stored comparative curve”, as in claim 20. However, Stark et al. also teach that treatment protocols are based upon statistical analysis of the database records (page 13, par. 1). Applicant further states that in Stark et al., the curves identified merely represent different treatment plans for the current patient, which is different that the “patient collective, who have already executed a comparable training program.” With regard to the “patient’s collective training data”, as shown in claim 20, Stark et al. teach the database with a plurality of historic treatment protocol records, as shown above (page 13, par. 1). The curves



taught by Stark et al. on page 26 pars. 1-3 are each based on a different subgroup of injuries and therefore meet the claim language for “comparative curves for at least two subgroups of comparative patients”, as shown in claim 20.

With regard to claims 6, 13, 19 and 23, Applicant states that Stark merely discloses that after a set protocol is completed, the patient performance is compared to the benchmark standard, which is different from the present claimed invention that continually compares patient performance in real time as the patient is performing the prescribed training program. The claims have limitations for “repeatedly recording and updating the patient data during the training program in order to automatically generate proposals for modifying the training program.” While the claims have no language for comparing patient performance in real time, Stark et al. teach automatic intervention or modification to the training program, which may be performed in real-time (page 19, par 2 - page 22, par. 2). The revision of the training program may be done after partial completion of the training program (page 19, par. 2) and meets the claim language of “updating the patient data during the training program”.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

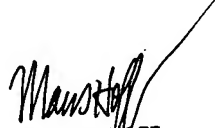
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manuel L. Barbee whose telephone number is 571-272-2212. The examiner can normally be reached on Monday-Friday from 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mlb  
January 28, 2005

  
MARC S. HOFF  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800